New York, May 24, 1917. No. 44

Published to advance the Science of cold-blooded vertebrates

AN UNUSUAL CATCH OF THE YOUNG OF MAINE WHITEFISH.

(*Coregonus labradoricus.*)

During March, numerous specimens of immature whitefish were taken with smelts in seines at Winterport, Walo County, Maine, in the tidal portion of the Penobscot River. The fish were not recognized by the fishermen and the fact was reported to Mr. James D. De Rocher, Superintendent of the U. S. Fisheries Station at East Orland, who secured three specimens and sent them to the Bureau of Fisheries for identification. Mr. De Rocher stated that in this place the water is only moderately brackish, but inasmuch as in Maine this fish is an inhabitant of the deeper lakes, and usually appears in streams only during the breeding season, and notwithstanding the fact that in the far north adult whitefishes enter salt water, it is believed that the present record is of interest. The origin of these young fish, which are only from 6 to 6½ inches in total length, is worthy of record. They had been feeding upon some small aquatic larva of insects.

W. C. Kendall,
U. S. Bureau of Fisheries.

NOTES ON GLOSSAMIA AND RELATED GENERA OF CARDINAL FISHES.

The genus *Glossamia* as Mr. Allan R. McCulloch (Records Australian Museum, February 20, 1917), has shown, is based on *Apogon aprion* Richardson, a species quite distinct from the American species called *Glossamia pandionis* Goode & Bean.

Glossamia has few and short gill rakers, 6 developed, and also a small patch of teeth on the tongue. In the typical species the scales are small, 40 to 43. In a second species, *Glossamia gilli* (Steindachner), with which species the type of *Mionurus* Krefft (*M. lunatus*), is identical, the scales are larger, 26 to 31. In both the nape is depressed giving an S-shaped contour to the region before the dorsal fin.

The genus called *Glossamia* by Goode and Bean (Oceanic Ichthyology, 1895, 231), may be known as *Xystramia* Jordan, new genus, from its long and numerous gill rakers (about 14). Its type is *Glossamia pandionis* Goode & Bean.

The genera of small Apogonids having the preopercle entire on both limbs have been much confused by authors, not least by the present author. They may be thus compared:

a. Preopercle with both limbs entire; anal fin short, its rays about II, 8, no canines.

b. Palatines with teeth.

c. Lateral line complete or very nearly so.

d. Body much compressed and elevated; dorsal spines produced; gill rakers long, slender, 6+21; scales large; caudal forked, (*Mionurus* Jordan & Seale, Fishes Samoa, 1906, 247, not of Krefft, 1867), (type *Apogon graeffi* Gunther); ZORAMIA Jordan, new genus.

dd. Body not much compressed and elevated; spinous dorsal low; caudal rounded or truncate.

e. Gill rakers few and small; (about 6), profile before dorsal S-shaped; scales rather small; tongue with small teeth (type *Apogon aprion* Richardson); GLOSSAMIA Gill.

ee. Gill rakers numerous, slender (12 to 14); profile nearly even from snout to dorsal.

f. Scales small (about 45); (type *Glossamia pandionis* Goode & Bean); XYSTRAMIA Jordan.

ff. Scales large, about 25 (type *Apogonichthys perdix* Bleeker); APOGONICHTHYS Bleeker.

cc. Lateral line incomplete; scales large; caudal rounded; (type *Fowleria brachygramma* Jenkins); FOA Jordan & Evermann.

bb. Palatines without teeth; scales large; caudal rounded; gill rakers few, short; opercle with a large black spot; (type *Apogon auritus* Cuv. & Val.); FOWLERIA Jordan & Evermann.

One of the species hitherto referred to *Amia* or *Apogon, Apogon fuscus* Quoy & Gaimard from Guam and Samoa, differs from the type of the genus in the long and rounded caudal fin, attached to a long caudal peduncle as long as head. It has large scales and six dorsal spines. It may be regarded as the type of a distinct genus, NECTAMIA Jordan, allied to *Apogonichthys*. In *Apogon* (*Amia*) proper and in the subgenus *Ostorhynchus* (seven dorsal spines) the caudal fin is forked or at least lunate. The Japanese species, *niger marginatus, unicolor* and *lineatus* have the caudal subtruncate, but in other regards these more nearly resemble *Apogon*, the caudal being short, its peduncle much shorter than head.

Apogon evermanni Jordan and Snyder from Hawaii with very small scales (54) forked caudal and six dorsal spines should be placed in the genus *Lepidamia* Gill, type *Apogon kalosoma* Bleeker.

DAVID STARR JORDAN,
Stanford University, Cal.

ACIPENSER FULVESCENS RAFINESQUE, THE GREAT LAKE STURGEON.

The Great Lake Sturgeon has been named many times by Le Sueur, Agassiz, Dumeril and other naturalists, but the earliest name of all those applied to it seems to have been subsequently overlooked. The species is currently known as *Acipenser rubicundus* Le Sueur, 1818, but that name must give place to *Acipenser fulvescens* Rafinesque, proposed in the American Monthly Magazine for August, 1817 (Vol. I, p, 288). The passage may be reprinted:

"A paper, entitled 'Addition to the Observations on the Sturgeons of North America,' from Mr. Rafinesque, was read before the Society [Literary and Philosophical Society of New York]. In this Memoir Mr. R. stated severally the discoveries of M. Le Suer, whose new species belong particularly to the genera salmo, cyprinus, silurus, anguilla, bodianus, perca, clupea, &c. Mr. R. gave it as his opinion that the lake sturgeon is a perfectly distinct species, to which the name of accipenser fulvescens could be given, as it is entirely of a dark fulvus color. It reaches six feet in length, has a very obtuse and short snout, a falcated dorsal fin, a smooth skin, five rows of shields; the lateral rows composed of a great number of small shields, upwards of forty, &c.

"The small sturgeon of Lake Erie, according to the author, remains yet to be described. He supposes that several small species may also be found in lakes Michigan, Huron, Superior and Winnipeg, but require the eyes of able observers. 'I have no doubt,' says Mr. R. 'That twenty species, at least, of this genus, inhabit North America, on the east and western lakes and rivers, and that as many dwell in the eastern continent.' "

CARL L. HUBBS,
Chicago, Ill.

PIPA AMERICANA REDISCOVERED ON TRINIDAD.

On May 17, 1916, the Amphibian collection at the Reptile House, New York Zoological Park, received a specimen of *Pipa americana,* the Surinam Toad, from Trinidad, B. W. I. It was caught in the interior of the island by one of Mr. R. R. Mole's collectors. Mr. Mole, who is well known as a herpetologist and collector, had for some time past made efforts to procure this unique toad on Trinidad, whence he had an old record of the species, but until 1916 had not met with success. Two specimens were secured, one was sent to the British Museum and the other came to New York. When it arrived, it was among the debris of the earthen vessel in which it had been shipped, with some sphagum moss, inside of a wooden box. During transit the pot had been smashed, and it is remarkable that the toad, which is a strictly aquatic creature, should have survived in an absolutely dry state until New York was reached. Upon being placed in a large aquarium planted with *Sagittaria,* it soon showed signs of scratches and bruises which were at first not evident on the dried and much wrinkled skin. The fleshy appendages at the tip of the snout and at the angles of the mouth, as well as the star-shaped ones on the ends of the fingers were gone—they had been rubbed off in the toad's efforts to escape from its too dry environment. In consequence of its injuries and the prolonged period of dryness, the toad died in a few days without having made an attempt to feed.

In a subsequent letter to the writer, Mr. Mole states that he caught two more, both females with young imbedded in the cells in the skin of the back. Later, one specimen "hatched out" eighty young ones, and the other had between fifty and sixty. Of this last batch, some were far more developed than others, but all still had the feathery tail. The first batch was more advanced, all the "toadlets" being

perfect and without tails. Several more specimens came to light later. Mr. Mole fed the adults on "frogs," presumably *Leptodactylus* sp., as there are no *Rana* in South America. A large specimen, about six inches head and body, will take four "frogs" at a meal, sometimes from one's hand. Mr. Mole has tried to feed them small fish,—as we have also done with specimens from British Guiana, at Bronx Park, —but they take nothing but frogs.

RICHARD F. DECKERT,
New York, N. Y.

NOTES ON *COLPOCHELYS KEMPI* GARMAN.

In examining a few of the turtles in the collection of the American Museum of Natural History, the writers recently found two specimens of the sea turtle *Colpochelys kempi* Garman, which appear worthy of note. This species ranges from the Gulf of Mexico along the Atlantic coast of the United States as far north as New Jersey. One of the present specimens is from Cape Hatteras, and the second bears no closer locality than "United States" (collected by Prince Maximilian von Wied). Both were labeled *Thalassochelys caretta* (L.).

The two specimens agree in the possession of the chief external characteristics which differentiate *C. kempi* from *Caretta caretta.* There are four inframarginals, of which the anterior is the largest; the inferior face of the marginals is proportionately much broader; and the parietals are much longer. Both have the prominent alveolar ridge of the upper jaw with the deep median notch, and the anterior median tooth of the lower jaw.

The larger specimen, A. M. N. H. No. 2205, from Cape Hatteras, presents a striking peculiarity of the carapace in having an interrupted keel, rising at the posterior edges of the first three neurals into prominent upturned spines, that of the second neural

(the highest) 8.5 mm. above the level of the keel. On the fourth and fifth neural, the keel approaches the normal shape. Traces of the lateral keels are visible on the second and third costals.

The smaller specimen, No. 4616, with traces of the "egg tooth" and of the umbilicus still present, appears to be the only young specimen of this species on record. Hay,* in 1908, mentions none smaller than 240 mm. It is much to be regretted that it is not accompanied by exact data. The upper jaw of this specimen is no more hooked than that of specimens of *C. caretta* of the same size, while that of No. 2205 is prominently hooked. The specimen has been compared with a series of seven young *Caretta caretta*. Hay, (loc. cit.), speaks of the alveolar ridges as less prominent in his smaller specimens, but they are sufficiently developed in this one to be very distinct from those of *C. caretta*. Hay also speaks of the proportionate breadth of the carapace as greater, though not distinctive; a comparison of the mean measurements of a series of both species might, however, show a valid difference in this character. The measurements of the present specimens, together with those of the young *C. caretta* for comparison, are tabulated below.

The "carapace and plastron" of *C. kempi* from the American Museum referred to by Hay (loc. cit.) were not found.

Colpochelys kempi Garman.

A.M.N.H. No.	(a) Length Carapace	(b) Breadth	(c) Length Plastron	b / a	c / a
2205	225 mm.	205	181	.91	.80
4616	47	41	38.5	.87	.81
Caretta caretta (L.)					
4607	47	38	35	.81	.74
4608	46	37	37	.80	.80
4609	47	39	36	.83	.76

*Proc. U. S. National Museum, Vol. 34, 1908, p. 185.

Caretta caretta (L.)—continued.

A.M.N.H. No.	(a) Length Carapace	(b) Breadth	(c) Length Plastron	b a	c a
4610	47	38	36	.81	.76
4611	47	39	35	.83	.74
4612	47	37	35	.79	.74
4613	48	37	37	.77	.77

KARL P. SCHMIDT,
EMMETT R. DUNN,
New York, N. Y.

FURTHER NOTES ON PSEUDEMYS AT PLYMOUTH, MASSACHUSETTS.

The two short articles in the December "COPEIA" having stimulated some new interest in this connection, I have to record the following new ponds in Plymouth County, Massachusetts, in which *Pseudemys rubriventris* has been observed: Great South Pond and Crooked Pond. The Island Pond mentioned in my notes is the one about one-half mile northeast of Gunners Exhange. Hallfield Pond, the existence of which Dr. Lucas doubted, is a small four-acre pond between Hoyt and Boot Ponds. *P. rubriventris* does not occur in Half-way Pond as far as I know. It is a curious fact that in the ponds where this turtle is found, it seems to be the most common species. It is also of interest that the "Plymouth Sabbatia" and other plants, as well as certain insects, notably dragon flies, which are distributed over the same local areas as this species of turtle, are all southern forms of life.

HAROLD L. BABCOCK,
Boston, Mass.

Edited by J. T. NICHOLS, American Museum of Natural History
PRICE FIVE CENTS